

## **AMENDMENT TO SPECIFICATION**

[Deleted material is struck-through and added material is underlined]

On page 1, after line 2, add section title:

**BACKGROUND OF THE INVENTION**

On page 10, after line 24, add section title:

**SUMMARY OF THE INVENTION**

On page 14, after line 19, add section title:

**DETAILED DESCRIPTION OF THE INVENTION**

On page 15, sentence starting at end of line 3 and ending at line 8:

It then follows that, for current in the range of  ~~$10^{13}$~~   $10^3$  and distances of the order of the size of atoms  $r = \text{ ~~$10^{-8}$~~   $10^{-8}$  cm}$ , the intensity of the magnetic fields H is of the order of  ~~$10^{13}$~~   $10^{13}$  Oersted, thus having intensity values fully sufficient to cause the magnetic polarization of the orbitals of peripheral atomic electrons.

Paragraph starting at line 20 on page 16 and ending at line 5 on page 17:

A first preferred embodiment of this invention is depicted in Fig. 7 and comprises: one, two or several pairs of positively and negatively charged electrodes 1 and 2, 3 and 4, ~~shown in the figures~~, here assumed to be composed of tungsten rods of 1/2" outside diameter and 3" in length with tip configuration depicted in Fig. 8 as described below; commercially available DC power units of 50 Kwh (not shown in the drawings for simplicity), one per each electrode pair ~~not shown in the figure for simplicity~~; a pipe system 5 typically of 1/2" internal diameter and 3/4" outside diameter ~~in the shape of the figure~~ composed of a diamagnetic metal or other nonconducting material suitable to withstand an internal pressure of least 4,500 psi; said electrode pairs are placed as a fixed part of piping system 5 via pressure resistant seals 16 in such a way to create the biggest possible gaps 19, 20, 21, etc., permitted by the selected 50 Kwh power unit and the selected gas at the selected operating pressure, which gap, for the case of hydrogen and oxygen (gas 14) at the selected operating features is of the order of 1/2"; four on-off high pressure valves 6, 7, 8, 9 at the indicated locations; three high pressure pumps 10, 11, and 12; two tanks 13, 15 of at least one scf each capable of withstanding at least 4,500 psi and located in line with piping system 5; and two commercially available high pressure gas cylinders 17, 18 connected as shown in the piping system 5.

Consecutive paragraphs starting on page 18, line 28 and ending on page 19, line 10:

The difference between the embodiment of Fig. 9 and that of Fig. 7 is the following. The latter embodiment acts according to the circular configuration of the magnetic field of Fig. 6, while the former embodiment acts according to a linear configuration of the magnetic field along the symmetry axis of the solenoid with intensity  $B = nI/r$ , where  $n$  is the number of turns,  $I$  is the current in Amps and  $r$  is the radius of said tube 201. It is evident that the linear alignment of magnetically polarized atoms along the direction of its flow favors the creation of into magnecules as compared to the circular alignment of Fig. 6, particularly when the equipment is operated, for instance, at pulses of 50,000 A with a radius of tube 201 of  $10^{-5}$   ~~$10^{-4}$~~  mm.

However, the selection of the preferred equipment depends on the specific needs. For instance, the embodiment of Fig. 9 cannot breakdown the original molecules, thus forming magnecules essentially composed of molecules with individual polarized atoms. By comparison, the electric arc of the apparatus depicted in Fig. 7 ~~Fig. 6~~ does indeed separate conventional molecules, thus forming magnecules which generally contains atoms, dimers and molecules.